

Bureau of Indian Affairs, Interior

§ 170.200

APPENDIX B TO SUBPART B—SOURCES OF TRIBAL TRANSPORTATION TRAINING AND EDUCATION OPPORTUNITIES

The following is a list of some of the many governmental sources for tribal transportation training and education opportunities. There may be other non-governmental, tribal, or private sources not listed here.

1. National Highway Institute training courses and fellowships
2. State and local technical assistance program workshops
3. Indian local technical assistance program workshops
4. FHWA and FTA Research Fellowships
5. Dwight David Eisenhower Transportation Fellowship (23 U.S.C. 504)
6. Intergovernmental personnel agreement assignments
7. BIA transportation cooperative education program
8. BIA force account operations
9. Federal Transit Administration workshops
10. State Departments of Transportation
11. Federal-aid highway construction and technology training including skill improvement programs under 23 U.S.C. 140 (b)(c)
12. Other funding sources identified in §170.150 (Transit)
13. Department of Labor work force development
14. Indian Employment, Training, and Related Services Demonstration Act, Public Law 102-477

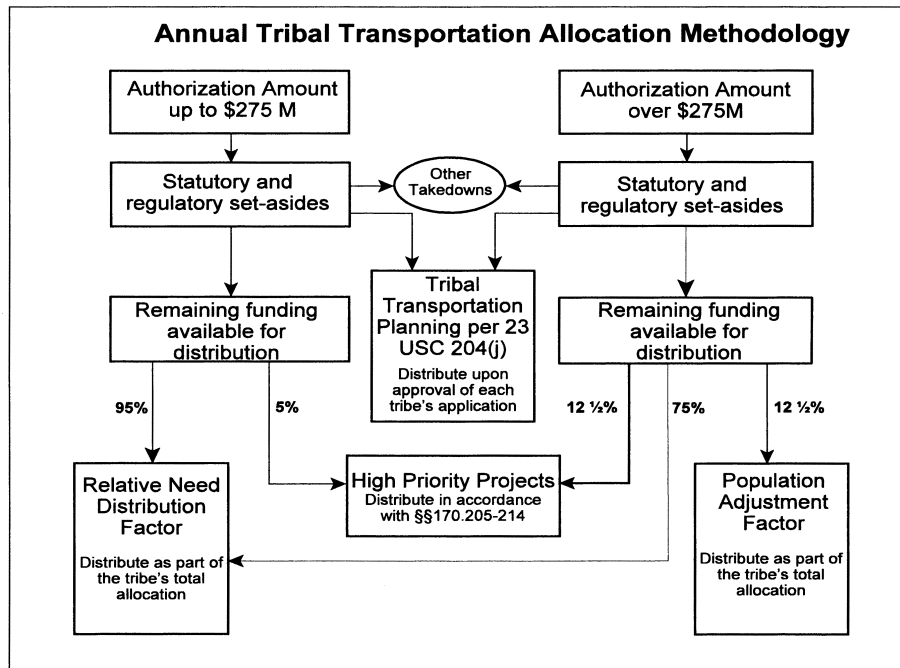
15. Garrett Morgan Scholarship (FHWA)
16. NTRC—National Transit Resource Center
17. CTER—Council for Tribal Employment Rights
18. BIA Indian Highway Safety Program
19. FHWA/STIPDG and NSTISS Student Internship Programs (Summer Transportation Internship Program for Diverse Groups and National Summer Transportation Institute for Secondary Students)
20. Environmental Protection Agency (EPA)
21. Department of Commerce (DOC)
22. Department of Housing and Urban Development Community Planning and Development

Subpart C—Indian Reservation Roads Program Funding

TRIBAL TRANSPORTATION ALLOCATION METHODOLOGY (TTAM)

§ 170.200 How does BIA allocate IRR Program funds?

This section sets forth the Tribal Transportation Allocation Methodology (TTAM) that BIA uses to allocate IRR Program funds. After appropriate statutory and regulatory set-asides, as well as other takedowns, the remaining funds are allocated as follows:



(a) A statutorily determined percentage to a tribal transportation planning program (under 23 U.S.C. 204(j)); and

(b) The remainder to a pool of funds designated as "Remaining funding available for distribution." This "Remaining funding available for distribution" pool is further allocated as follows:

(1) 5 percent to a discretionary pool for IRR High Priority Projects (IRRHPP); and

(2) 95 percent to pool for distribution by the following Relative Need Distribution Factor (RNDF) as defined in §170.223:

(50 percent Cost to Construct + 30 percent Vehicle Miles Traveled + 20 percent Population)

(3) If the annual authorization is greater than \$275 million, then the amount above \$275 million, after appropriate statutory and regulatory set-asides, as well as other takedowns are applied, will be allocated as follows:

(i) 12.5 percent to the IRRHPP (§170.205);

(ii) 12.5 percent to the Population Adjustment Factor (PAF) (§170.220); and

(iii) 75 percent to the RNDF (§170.223).

§ 170.201 How does BIA allocate and distribute tribal transportation planning funds?

Upon request of a tribal government and approval by the BIA Regional Office, BIA allocates tribal transportation planning funds described in §170.403 pro rata according to the tribes' relative need percentage from the RNDF described in §170.223. The tribal transportation planning funds will be distributed in accordance with the BIA procedures for self-governance tribes that negotiate tribal transportation planning in their annual funding agreements and to BIA Regional Offices for all other tribes.

§ 170.202 Does the Relative Need Distribution Factor allocate funding among tribes?

Yes. The RNDF determines the amount of funding available to allocate

to the tribes for their approved IRR projects and activities under 23 U.S.C. 202(d)(2). The IRR Program construction funds are allocated pro rata according to the tribes' relative need percentage from the Funding Formula.

(a) The IRR Program construction funds will be distributed in accordance with the BIA procedures for self-governance tribes that negotiate IRR construction projects into their AFA, and distributed to BIA Regional Offices for all other tribes.

(b) In order for a tribe's IRR Program allocation to be expended on a construction project, the project must be included in an FHWA-approved Transportation Improvement Program (TIP).

IRR HIGH PRIORITY PROJECT (IRRHPP)

§ 170.205 What is an IRR High Priority Project (IRRHPP)?

(a) The IRRHPP is a special funding pool that can be used:

(1) By a tribe whose annual allocation is insufficient to complete its highest priority project;

(2) By a governmental subdivision of a tribe that is authorized to administer the tribe's IRR Program funding and whose annual allocation is insufficient to complete its highest priority project; or

(3) By any tribe for an emergency/disaster on any IRR transportation facility.

(b) Eligible applicants may have only one IRRHPP application pending at any time. This includes emergency/disaster applications.

(c) IRRHPP funds cannot be used for transportation planning, research, routine maintenance activities, and items listed in § 170.116.

§ 170.206 How is an emergency/disaster defined?

(a) An emergency/disaster is damage to an IRR transportation facility that:

(1) Renders the facility impassable or unusable; and

(2) Is caused by either a natural disaster over a widespread area or catastrophic failure from an external cause.

(b) Some examples of natural disasters are: floods, droughts, earthquakes, tornadoes, landslides, avalanches, and severe storms.

(c) An example of a catastrophic failure is the collapse of a highway bridge after being struck by a barge, truck, or landslide.

§ 170.207 What is the intent of IRRHPP emergency/disaster funding?

The intent of IRRHPP emergency/disaster funding is to provide funding for a project that contains eligible work and would be approved for FHWA-ERFO Program funding except that the disaster dollar threshold for eligibility in the FHWA-ERFO program has not been met. Applicants are encouraged to apply for FHWA-ERFO Program funding if the project meets the requirements of the program.

§ 170.208 What funding is available for IRRHPP?

The IRRHPP funding level (see chart in § 170.200) for the year is:

(a) Authorization Amount up to \$275 million—5 percent of the pool of funds designated as "Remaining funding available for distribution"; plus

(b) Authorization Amount over \$275 million—12.5 percent the amount above \$275 million after appropriate statutory and regulatory set-asides, as well as other takedowns.

§ 170.209 How will IRRHPP applications be ranked and funded?

(a) BIADOT and the Federal Lands Highway (FLH) Program office will determine eligibility and fund IRRHPP applications subject to availability of funds and the following criteria:

(1) Existence of safety hazards with documented fatality and injury accidents;

(2) Number of years since the tribe's last IRR Program construction project completed;

(3) Readiness to proceed to construction or IRRBP design need;

(4) Percentage of project cost matched by other non-IRR Program funds (projects with a greater percentage of other matched funds rank ahead of lesser matches);

(5) Amount of funds requested (smaller requests receive greater priority);

(6) Challenges caused by geographic isolation; and

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(7) All weather access for: employment, commerce, health, safety, educational resources, and housing.

(b) Funding is limited to the estimated cost of repairing damage to the IRR transportation facility up to a maximum of \$1 million per application.

(c) A project submitted as an emergency/disaster must be at least 10 percent of a tribe's relative need distribution.

(d) BIA's regional roads engineer or the tribe, if it has plans, specifications, and estimates (PS&E) approval authority will certify the cost estimate in approving the plans, specifications, and estimates for the IRRHPP.

(e) The Project Scoring Matrix is found in appendix A to subpart C.

§ 170.210 How may a tribe apply for IRRHPP?

A tribe may apply for IRRHPP funds by submitting a complete application to BIADOT. The application must include:

(a) Project scope of work (deliverables, budget breakdown, timeline);

(b) Amount of IRRHPP funds requested;

(c) Project information addressing ranking criteria identified in §170.209, or the nature of the emergency/disaster;

(d) Documentation that the project meets the definition of an IRR transportation facility and is in the IRR Inventory;

(e) Documentation of official tribal action requesting the IRRHPP project; and

(f) Documentation from the tribe providing authority for BIA to place the project on an IRRHPP TIP if the project is selected and approved.

§ 170.211 What is the IRRHPP Funding Priority List?

The IRRHPP Funding Priority List (FPL) is the ranked IRRHPPs approved for funding under §170.209.

(a) The number of projects on the FPL is limited by the amount of IRRHPP funds available at the beginning of the fiscal year.

(b) BIA will place all projects on the FPL on an IRRHPP TIP and forward them to FHWA for approval.

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§ 170.212 What is the timeline for IRRHPPs?

(a) BIA will accept IRRHPP applications until December 31 each year for projects during the following year. BIA processes IRRHPP applications as shown in the following table:

By . . .	BIA will . . .
(1) January 31	Notify all applicants and Regions in writing of acceptance of applications.
(2) March 31 ...	Coordinate with FLH to rank all accepted applications in accordance with Appendix A to Subpart C, develop the FPL, and return unaccepted applications to the applicant with an explanation of the deficiencies.
(3) April 15	Notify all accepted applicants of the projects included on the FPL.
(4) May 15	Distribute funds to BIA Regions or in accordance with procedures of the Office of Self-Governance for selected IRRHPP.

(b) If total funding for accepted projects does not equal the total funds available for IRRHPP, the remaining funds will be redistributed by the Relative Need Distribution Factor in accordance with Appendix C to subpart C.

(c) All IRRHPP funds must be obligated on or before August 15. If it is anticipated that these funds cannot be obligated by the end of the fiscal year, IRRHPP funds assigned to an approved project must be returned to FHWA by August 1. BIA will redistribute these funds the following fiscal year to those approved projects. (See §170.213.)

§ 170.213 How long are IRRHPP funds available for a project?

Any project not under contract for construction within 3 fiscal years of its initial listing on an FPL will forfeit its unexpended funding. Applicants may request, in writing, a one-time, 1-year extension of this deadline from BIA. Upon completion of an IRRHPP, funds that are reserved but not expended are to be recovered and returned to the IRRHPP funding pool.

§ 170.214 How does award of an emergency/disaster project affect projects on the FPL?

(a) A tribe may submit an emergency/disaster project any time during the fiscal year. BIA considers these projects a priority and funds them as follows:

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(1) If a tribe submits a project before the issuance of the FPL and it is determined as eligible for IRRHPP funds, BIA will provide funding before providing funding for the other approved projects on the FPL; or

(2) If a tribe submits a project after the issuance of the FPL and the distribution of the IRRHPP funds, BIA will provide funding when funds provided to the FPL projects is returned to BIA due to their inability to be obligated. (See §170.212(c).)

(b) If BIA uses funding previously designated for a project on the FPL to fund an emergency/disaster project, the FPL project that lost its funding will move to the top of the FPL for the following year.

POPULATION ADJUSTMENT FACTOR

§ 170.220 What is the Population Adjustment Factor?

The Population Adjustment Factor (PAF) is a special portion of the total IRR Program distribution calculated annually that provides for broader participation in the IRR Program by tribes (or a governmental subdivision of a tribe authorized to administer the tribe's IRR Program funding). The PAF is based upon the population ranges and distribution factors in appendix B to subpart C. The population data used is the American Indian and Alaska Native Service Population developed by the Department of Housing and Urban Development, under the Native American Housing Assistance and Self-Determination Act (NAHASDA), (25 U.S.C. 4101 *et seq.*). Appendix B to subpart C explains how the PAF is derived. The funds generated by the PAF can be used for transportation planning or IRR projects.

§ 170.221 What funding is available for distribution using the PAF?

When the annual authorization for the IRR Program is greater than \$275 million, 12.5 percent of the amount above \$275 million after the appropriate statutory and regulatory set-asides, as well as other takedowns, is available for distribution using the PAF.

RELATIVE NEED DISTRIBUTION FACTOR

§ 170.223 What is the Relative Need Distribution Factor (RNDF)?

The Relative Need Distribution Factor (RNDF) is a mathematical formula used for distributing the IRR Program construction funds. The RNDF is derived from a combination of the cost to construct, vehicle miles traveled, and population. Appendix C to subpart C explains how the RNDF is derived and applied.

IRR INVENTORY AND LONG-RANGE TRANSPORTATION PLANNING (LRTP)

§ 170.225 How does the LRTP process relate to the IRR Inventory?

The LRTP process (see subpart D) is a uniform process that identifies the transportation needs and priorities of the tribes. The IRR Inventory is derived from transportation facilities identified through LRTP. It is also a means for identifying projects for the IRRHPP Program.

§ 170.226 How will this part affect the IRR Inventory?

The IRR Inventory defined in this part will expand the IRR Inventory for funding purposes to include:

- (a) All roads, highway bridges, and other eligible transportation facilities that were previously approved in the BIA Road System in 1992 and each following year;
- (b) All Indian reservation roads constructed using Highway Trust funds since 1983;
- (c) All designated IRR routes (25 CFR 170.442-170.444);
- (d) Non-road transportation related facilities; and
- (e) Other applicable IRR transportation facilities.

§ 170.227 How does BIA develop and use the IRR Inventory?

The IRR Inventory as defined in §170.442 identifies the transportation need by providing the data that BIA uses to generate the Cost to Construct (CTC) and Vehicle Miles Traveled (VMT) components of RNDF. The IRR Inventory is developed through the LRTP process, as described in §§170.410 through 170.415. BIA Regional offices

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maintain, certify, and enter the data for their region's portion of the IRR Inventory database. Only project-specific transportation activities are included in the IRR Inventory.

§ 170.228 Are all facilities included in the IRR Inventory used to calculate CTC?

No. Projects/facilities proposed to receive construction funds on an approved IRR TIP are not eligible for future inclusion in the calculation of the CTC portion of the formula for a period of 5 years thereafter.

GENERAL DATA APPEALS

§ 170.231 May a tribe challenge the data BIA uses in the RNDF?

(a) A tribe may submit a request to the BIA Regional Director to revise the data for the tribe that BIA uses in the RNDF. The request must include the tribe's data and written support for its contention that the tribal data is more accurate than BIA's.

(b) A tribe may submit a data correction request at any time. In order to impact the distribution in a given fiscal year, a data correction request must be approved, or any subsequent appeals resolved, by June 1 of the prior fiscal year.

(c) The BIA Regional Director must respond within 30 days of receiving a data correction request under this section.

(1) Unless the BIA Regional Director determines that the existing BIA data is more accurate, the BIA Regional Director must approve the tribe's data correction request and accept the tribe's corrected data.

(2) If the BIA Regional Director disapproves the tribe's request, the decision must include a detailed written explanation of the reasons for the disapproval, copies of any supporting documentation (other than the tribe's request) that the BIA Regional Director relied upon in reaching the decision, and notice of the tribe's right to appeal the decision.

(3) If the BIA Regional Director does not approve the tribe's request within 30 days of receiving the request, the request must be deemed disapproved.

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§ 170.232 How does a tribe appeal a disapproval from the BIA Regional Director?

(a) Within 30 days of receiving a disapproval, or within 30 days of a disapproval by non-action of the BIA Regional Director, a tribe may file a written notice of appeal to the Director, Bureau of Indian Affairs, with a copy provided to the BIA Regional Director; and

(b) Within 30 days of receiving an appeal, the Director, Bureau of Indian Affairs must issue a written decision upholding or reversing the BIA Regional Director's disapproval. This decision must include a detailed written explanation of the reasons for the disapproval, copies of any supporting documentation that the Director, Bureau of Indian Affairs relied upon in reaching the decision (other than the tribe's request or notice of appeal), and notice of the tribe's right to appeal the decision to the Interior Board of Indian Appeals under 25 CFR part 2.

FLEXIBLE FINANCING

§ 170.300 May tribes use flexible financing to finance IRR transportation projects?

Yes. Tribes may use flexible financing in the same manner as States to finance IRR transportation projects, unless otherwise prohibited by law.

(a) Tribes may issue bonds or enter into other debt financing instruments under 23 U.S.C. 122 with the expectation of payment of IRR Program funds to satisfy the instruments.

(b) Under 23 U.S.C. 183, the Secretary of Transportation may enter into an agreement for secured loans or lines of credit for IRR projects meeting the requirements contained in 23 U.S.C. 182. Tribes or BIA may service Federal credit instruments. The secured loans or lines of credit must be paid from tolls, user fees, or other dedicated revenue sources.

(c) Tribes may use IRR Program funds as collateral for loans or bonds to finance IRR projects. Upon the request of a tribe, a BIA region will provide necessary documentation to banks and other financial institutions.

§ 170.301 Can a tribe use IRR Program funds to leverage other funds or pay back loans?

(a) A tribe can use IRR Program funds to leverage other funds.

(b) A tribe can use IRR Program funds to pay back loans or other finance instruments for a project that:

(1) The tribe paid for in advance of the current year using non-IRR Program funds; and

(2) Was included in FHWA-approved IRR TIP.

§ 170.302 Can BIA regional offices borrow IRR Program funds from each other?

Yes. A BIA Regional office, in consultation with tribes, may enter into agreements to borrow IRR Program funds to assist another BIA regional office in financing the completion of an

IRR project. These funds must be repaid within the next fiscal year. These agreements cannot be executed during the last year of a transportation authorization act unless Congress has authorized IRR Program funds for the next year.

§ 170.303 Can a tribe apply for loans or credit from a State infrastructure bank?

Yes. Upon the request of a tribe, BIA region will provide necessary documentation to a State infrastructure bank to facilitate obtaining loans and other forms of credit for an IRR project. A state infrastructure bank is a state or multi-state fund that can offer loans and other forms of credit to help project sponsors, such as tribes, pay for transportation projects.

APPENDIX A TO SUBPART C—IRR HIGH PRIORITY PROJECT SCORING MATRIX

Score	10	5	3	1	0
Accident and fatality rate for candidate route ¹ .	Severe	X	Moderate	Minimal	No accidents.
Years since last IRR construction project completed.	Never	Last project more than 10 years ago.	Last project 5–9 years ago.	Last project within last 1 to 4 years.	Currently has project.
Readiness to Proceed to Construction or IRRBP Design Need.	PS&E Complete and approved.	Bridge Replacement PS&E development Project.	Bridge Rehabilitation PS&E development Project.	Non-bridge PS & E development Project.	X.
Percentage of Project matched by other funds.	X	80 percent or more by other funds.	20–79 percent by other funds.	1–19 percent	No other funds.
Amount of funds requested ²	X	250,000 or less ..	250,001–500,000	500,001–750,000	Over 750,000.
Geographic isolation	No external access to community.	Substandard Primary access to community.	Substandard Secondary access to community.	Substandard access to tribal facility.	X.
All weather access for:	Addresses all 6 elements.	Addresses 4 or 5 elements.	Addresses 3 elements.	Addresses 2 elements.	Addresses 1 element.
—Employment					
—Commerce					
—Health					
—Safety					
—Educational Resources					
—Housing					

¹ National Highway Traffic Safety Board standards.

² Total funds requested, including preliminary engineering, construction, and construction engineering.

APPENDIX B TO SUBPART C—POPULATION ADJUSTMENT FACTOR

1. The Population Adjustment Factor allows for participation in the IRR Program by all tribes. This component of the funding for-

mula creates a special calculation of funding which is available in accordance with the TTAM each fiscal year for a tribe based on the population range within which the tribe is included. The following table shows how BIA develops the PAF.

Population range	Distribution factor*	Number of tribes**	Funding amount per tribe
Less than 25	1	N ₁	MBA*** × 1

Population range	Distribution factor*	Number of tribes**	Funding amount per tribe
25-100	3.5	N ₂	MBA × 3.5
101-1000	5.0	N ₃	MBA × 5.0
1001-10,000	6.5	N ₄	MBA × 6.5
10,001+	8	N ₅	MBA × 8

* Multiplier used to determine the PAF funding for the population ranges. For example, if \$1000 is available for the first population range (less than 25), then the second population range (25-100) will receive \$3,500 or 3.5 times the amount available to the first population range.

** The number of tribes changes yearly.

*** The Minimum Base Allocation (MBA) is the dollar value to be multiplied by the distribution factor for each population range to determine the distribution of the PAF.

2. The following example shows how the PAF applies to a total IRR Program authorization for the allocation year of \$375 million. The five steps to calculate the Population Adjustment Factor are applied as follows:

Step 1. For each population range, multiply the Distribution Factor by the total number of tribes identified in the population range to determine the Step Factor;

Step 2. Add the Step Factors determined in Step 1 above to derive a Total Step Factor;

Step 3. Calculate the \$A = IRR Program authorization available in the allocation year by taking the Total IRR Program authorization for the allocation year (\$375M for this example) minus the appropriate statutory and regulatory set-asides, as well as other takedowns (\$25M for this example)

$$\$375M - \$25M = \$350M;$$

Step 4. Derive a Minimum Base Allocation by taking 12½ per cent of the difference (from Step 3) and dividing it by the Total Step Factor. The mathematical equation for the Base Allocation is as follows:

$$MBA = \left(\frac{12\frac{1}{2}\% \times (\$A - \$275M)}{(N_1 + 3.5N_2 + 5N_3 + 6.5N_4 + 8N_5)} \right)$$

MBA = Minimum Base Allocation
 Distribution Factors = 1, 3.5, 5, 6.5, and 8
 \$A = IRR Program Authorization Available in the Allocation Year
 \$275M = Base Reference Amount

n = The nth Population Range
 1 . . . 5 = Population Ranges 1 through 5
 N_n = Number of tribes in the nth Population Range

For the example above, the formula yields:

$$MBA = \frac{12\frac{1}{2}\% \times (\$350M - \$275M)}{17 + 3.5(66) + 5(309) + 6.5(137) + 8(29)} = \frac{\$9,375,000}{2,915.50} = \$3,215.57$$

Step 5. Calculate Population Adjustment Factor within each Population Range by multiplying the Distribution Factor for the Population Range by the Minimum Base Allocation.

The mathematical equation for the Population Adjustment Factor calculation is as follows:

$$PAF_n = DF_n \times MBA$$

Where:

PAF = Population Adjustment Factor

DF = Distribution Factor

n = The nth Population Range

MBA = Minimum Base Allocation

For example, for DF₁ = 1.00; PAF₁ = 1 × \$3,215.57 = \$3,215.57

For example, for DF₃ = 5.00; PAF₃ = 5 × \$3,215.57 = \$16,077.86

The following table illustrates the results of the above calculations for all population ranges:

Population range (step)	# of tribes	Distribution factor	Step factor	Tribal PAF per population range	Total funding per step
Less than 25	17	1	17	\$3,215.57	\$54,664.72
25-100	66	3.5	231	11,254.50	742,797.12
101-1000	309	5	1545	16,077.36	4,968,058.65
1001-10,000	137	6.5	890.50	20,901.22	2,863,466.82
10,001 +	29	8	232	25,724.58	746,012.69
Totals		Total Step Factor = 2,915.50			9,375,000

APPENDIX C TO SUBPART C—RELATIVE NEED DISTRIBUTION FACTOR

The Relative Need Distribution Factor (RNDF) is a mathematical formula for distributing the IRR Program construction funds using the following three factors: Cost

to Construct (CTC), Vehicle Miles Traveled (VMT), and Population (POP).

1. WHAT IS THE FORMULA FOR THE RNDF?

The Relative Need Distribution Factor is as follows:

$$A = \alpha \times \{CTC \div Total C\} + \beta \times \{VMT \div Total VMT\} + \delta \times \{POP \div Total POP\}$$

Where:

- A = percent Relative Need for an individual tribe
- CTC = Total Cost to Construct calculated for an individual tribe
- Total C = Total Cost to Construct calculated for all tribes shown in the IRR Inventory
- VMT = Total vehicle miles traveled for all routes in the IRR Inventory for a given tribe

Total VMT = Total vehicle miles traveled for all routes for all tribes in the IRR Inventory

- POP = Population of an individual tribe
- Total POP = Total population for all tribes
- α, β, δ = 0.50, 0.30, 0.20 respectively = Coefficients reflecting relative weight given to each formula factor

Example: Tribe X has the following data:

CTC = \$51,583,000 Total CTC = \$10,654,171,742
 VMT = 45,680 Total VMT = 10,605,298
 POP = 4,637 Total POP = 1,010,236
 $A = 0.50 [CTC \div Total CTC] + 0.30[VMT \div Total VMT] + 0.20[POP \div Total POP]$
 $A = 0.50 [51,583,000 \div 10,654,171,742] + 0.30 [45,680 \div 10,605,298] + 0.20 [4,637 \div 1,010,236]$
 $A = 0.00242 + 0.00129 + 0.00092$
 $A = 0.00463$ or 0.463 percent

If IRR Program construction funds available for the fiscal year are \$226,065,139
 Then the allocation amount would be: \$226,065,139 \times 0.00463 = \$1,046,682.

2. How Does BIA Estimate Construction Costs?

The methodology for calculating the Cost to Construct is explained in Appendix D of this subpart.

3. What Is the Cost to Construct for an Individual Tribe?

The Cost to Construct for an individual tribe is the sum of all eligible and approved project costs from the tribe's IRR Inventory.

4. What Is the Cost to Construct Component in the RNDF?

The Cost to Construct component is the total estimated cost of a tribe's transportation projects as a percentage of the total estimated cost nationally of all tribes' transportation facilities. Costs are derived from the IRR inventory of eligible IRR transportation facilities developed and approved by

BIA and tribal governments through Long-Range Transportation Planning.

5. May the Cost to Construct Component of the RNDF Be Modified?

Yes, BIA and FHWA, with input and recommendations provided by the IRR Program Coordinating Committee, may consider revisions to the data elements used in calculating the Cost to Construct component.

6. What Is the Source of the Construction Cost Used To Generate the CTC?

(a) The construction cost will be derived from the average of the following three project bid tabulation sources:

- (1) Tribal bid tabulations or local BIA bid tabulations;
- (2) State bid tabulations for the region of the State in which the tribe's project will be constructed;

(3) National IRR Program bid tabulations.
 (b) If one or more of these bid tabulation sources is unavailable, use the average of the available sources.

(c) BIADOT will collect the national IRR Program bid tabulation data and enter it into the Cost to Construct database.

7. What Is the VMT Component and How Is It Calculated?

VMT is a measure of the current IRR transportation system use. BIA calculates VMT using the sum of the length of IRR route segments in miles multiplied by the Average Daily Traffic (ADT) of the route segment.

8. What IRR Route Sections Does BIA Use To Calculate VMT?

All IRR route sections in the IRR Inventory are used to calculate VMT, but percentage factors are applied in accordance with Appendix C to subpart C, question (10).

9. What Is the Population Component and How Is It Determined?

The population component is a factor used to define a portion of transportation need based on the number of American Indian or Alaska Native people served. The population data used will be the American Indian and Alaska Native Service Population developed by the Department of Housing and Urban Development, under the Native American Housing Assistance and Self-Determination Act (NAHASDA), (25 U.S.C. 4101 *et seq.*).

10. Do All IRR Transportation Facilities in the IRR Inventory Count at 100 Percent of Their CTC and VMT?

No. The CTC and VMT must be computed at the non-Federal share requirement for matching funds for any transportation facility that is added to the IRR inventory and is eligible for funding for construction or reconstruction with Federal funds, other than Federal Lands Highway Program funds.

However, if a facility falls into one or more of the following categories, then the CTC and VMT factors must be computed at 100 percent:

(1) The transportation facility was approved, included, and funded at 100 percent of CTC and VMT in the IRR Inventory for funding purposes prior to the issuance of these regulations.

(2) The facility is not eligible for funding for construction or reconstruction with Federal funds, other than Federal Lands Highway Program funds; or

(3) The facility is eligible for funding for construction or reconstruction with Federal funds, however, the public authority responsible for maintenance of the facility provides certification of maintenance responsibility and its inability to provide funding for the project.

APPENDIX D TO SUBPART C—COST TO CONSTRUCT

COST TO CONSTRUCT

(Appendix D includes Tables 1–8 which BIA Division of Transportation developed based on internal IRR data and the negotiated rulemaking process.) This method utilizes the concepts of the Bureau of Indian Affairs' “*Simplified Approach to Compute the Cost to Construct*”. The concept has been modified to include computing costs for High Capacity Roads (multi-lane roads), non-road projects (snowmobile trails, boardwalks, footpaths, etc.) and other eligible transportation facility projects.

The theory behind this concept is based on the procedure that information gathered during any inventory update can be used to compare the existing conditions to defined Adequate Standard Characteristics. This comparison can then be used to determine the total cost required to bring the transportation facility road up to a necessary Adequate Standard. The IRR Inventory database is used to determine the costs of a new transportation facility or in the case of an existing facility, the costs that will be necessary to improve the facility from its existing condition to an adequate standard. Therefore, the Cost to Construct for a particular facility is the cost required to improve the facility's existing condition to a condition that would meet the Adequate Standard Characteristics (see Table 1). For roadways, the recommended design of the geometrics and surface type vary based on the road's functional classification and average daily traffic and will use four categories of cost. The four categories are Grade and Drain Costs, Aggregate Costs, Pavement Costs, and Incidental Costs. For bridges, costs are derived from costs in the National Bridge Inventory as well as the National Bridge Construction unit cost data developed by FHWA. For other transportation IRR transportation facilities, an inventory of needs must be developed with associated costs for new and existing IRR transportation facilities based on long range transportation planning. The BIA Regions and tribes must ensure the IRR Inventory is sufficiently updated to provide all the necessary information indicating the need, the condition and the construction cost data to compute the cost to construct of any proposed or existing facility.

BASIC PROCEDURES

The IRR Inventory, based on transportation planning must be developed for those tribes without data and updated for those tribes that have an existing IRR Inventory. Once the IRR Inventory database is current and all IRR transportation facilities needs

are identified and verified, the Cost to Construct for those IRR transportation facilities can be developed.

The procedure for determining the cost to construct of a proposed transportation facility is computed through the following step-by-step process:

(a) Determine the Future ADT of the transportation facility as applicable, based upon tribal transportation planning or set default future ADT (see Table 2);

(b) Determine the Class of transportation facility *e.g.*, rural local, rural major collector, or other transportation facility, utilizing future ADT and based upon tribal transportation planning (see Table 1);

(c) Identify, if appropriate, transportation facility terrain as flat, rolling, or mountainous;

(d) Set Adequate Standard based on Class, and/or future ADT, and Terrain (see Table 1);

(e) Identify the transportation facility's construction cost per unit (*e.g.*, cost per mile, cost per linear foot) for the applicable components of construction: Aggregate, Paving, Grade/Drain, Incidental, or other costs associated with the transportation facility;

(f) Multiply the construction cost per unit for each component of construction by the length of the proposed road or other appropriate unit of the transportation facility to determine the cost for each component of construction; and

(g) Calculate the cost for the proposed road or transportation facility by adding together the costs for each component of construction.

The procedure for determining the cost to reconstruct or rehabilitate an existing transportation facility is determined in the same manner as a proposed transportation facility, except that the existing condition of the project is evaluated to determine the remaining percentage of cost of each applicable component of construction that will be included in the cost for reconstruction. The steps are:

(1) Evaluate existing condition of road or transportation facility in accordance with applicable management systems, guidelines or other requirements;

(2) Identify the percentage of required cost for each component of applicable construction costs for the transportation facility by determining the Adequate Standards Characteristics (see Table 1) and existing condition of the transportation facility and by applying the applicable percent cost requirement tables for aggregate, paving, grade/drain, incidental, and bridge (see Tables 4-8);

(3) Multiply the construction cost per unit for each component of construction by the corresponding percent of cost required (see Tables 4-8) and by the length of the road or other appropriate unit of the transportation facility to determine the reconstruction cost for each component; and

(4) Calculate the reconstruction cost for the road or transportation facility by adding together the reconstruction costs for each component of construction.

Average daily traffic (ADT) is acquired through actual traffic counts on the roadway sections. Where current ADT is practical to acquire, it should be acquired and future ADT calculated by projecting the current ADT at 2 percent per year for 20 years. If the road is proposed, the ADT impractical to acquire, or a current ADT does not exist, then BIA will assign a default current ADT and calculate future ADT by projecting the default current ADT at 2 percent per year for 20 years to form the basis of the Adequate Standard (see Table 1). Table 2 summarizes the default current and default future ADT by class of road.

Functional Classification: Functional classification means an analysis of a specific transportation facility taking into account current and future traffic generators, and their relationship to connecting or adjacent BIA, state, county, Federal, and/or local roads and other intermodal facilities. Functional classification is used to delineate the difference between the various road and/or intermodal transportation facility standards eligible for funding under the IRR Program. As a part of the IRR Inventory system management, all IRR transportation facilities included on or added to the IRR Inventory must be classified according to the following functional classifications:

(a) *Class 1:* Major arterial roads providing an integrated network with characteristics for serving traffic between large population centers, generally without stub connections and having average daily traffic volumes of 10,000 vehicles per day or more with more than two lanes of traffic.

(b) *Class 2:* Rural minor arterial roads providing an integrated network having the characteristics for serving traffic between large population centers, generally without stub connections. May also link smaller towns and communities to major resort areas that attract travel over long distances and generally provide for relatively high overall travel speeds with minimum interference to through traffic movement. Generally provide for at least inter-county or inter-State service and are spaced at intervals consistent with population density. This class of road will have less than 10,000 vehicles per day.

(c) *Class 3:* Streets that are located within communities serving residential areas.

(d) *Class 4:* Rural Major Collector Road is a collector to rural local roads.

(e) *Class 5:* Rural Local Road that is either a section line and/or stub type roads that collect traffic for arterial type roads, make connections within the grid of the IRR System. This class of road may serve areas around villages, into farming areas, to

schools, tourist attractions, or various small enterprises. Also included are roads and motorized trails for administration of forest, grazing, mining, oil, recreation, or other use purposes.

(f) *Class 6:* City Minor Arterial Streets that are located within communities, and serve as access to major arterials.

(g) *Class 7:* City Collector Streets that are located within communities and serve as collectors to the city local streets.

(h) *Class 8:* This classification encompasses all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, trail bikes, snowmobile, all terrain vehicles or other uses to provide for the general access of non-vehicular traffic.

(i) *Class 9:* This classification encompasses other transportation facilities such as public parking facilities adjacent to IRR routes and scenic byways, rest areas, and other scenic pullouts, ferry boat terminals, and transit terminals.

(j) *Class 10:* This classification encompasses airstrips that are within the boundaries of the IRR System grid and are open to the public. These airstrips are included for inventory and maintenance purposes only.

(k) *Class 11:* This classification indicates an overlapping of a previously inventoried section or sections of a route and is used to indicate that it is not to be used for accumulating needs data. This class is used for reporting and identification purposes only.

Construction Need: All existing and proposed transportation facilities in the IRR Inventory must have a Construction Need (CN) which is used in the Cost to Construct calculations. These transportation facilities are assigned a CN by the tribe during the long-range transportation planning and inventory update process using certain guidelines which are: Ownership or responsibility of the facility, whether it is within or provides access to reservations, groups, villages and communities in which the majority of the residents are Indian, and whether it is vital to the economic development of Indian tribes. As part of the IRR Inventory management, all facilities included on or added to the IRR Inventory must be designated a CN which are defined as follows:

(a) *Construction Need 0:* Transportation facilities which have been improved to their acceptable standard or projects/facilities proposed to receive construction funds on an approved IRR TIP are not eligible for future inclusion in the calculation of the CTC portion of the formula for a period of 5 years thereafter.

(b) *Construction Need 1:* Existing BIA roads needing improvement.

(c) *Construction Need 2:* Construction need other than BIA roads needing improvement.

(d) *Construction Need 3:* Substandard or other roads for which no improvements are planned, maintenance only.

(e) *Construction Need 4:* Roads which do not currently exist and need to be constructed, proposed roads.

TABLE 1 - ADEQUATE STANDARD CHARACTERISTICS

The cost to construct of a particular transportation facility is defined as the cost required to improve the transportation facility from its existing condition to a condition that would meet the Adequate Standard Characteristics. Table 1 presents the Adequate Standard Characteristics.

ADEQUATE STANDARD NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
TERRAIN**	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FUTURE ADT used in ADS assignment	N/A	N/A	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400	FADT<=400
BIA CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	11
	MAJOR ARTERIAL	RURAL MINOR ARTERIALS	RURAL MAJOR COLLECTOR	RURAL LOCAL	CITY MINOR ARTERIAL	CITY COLLECTOR	CITY LOCAL	MOTORIZED/ NON-MOTORIZED TRAILS	OTHER TRANSPORTATION FACILITIES	AIRSTRIPS	Overlapping Routes											
CALCULATED VALUES																						
FUTURE SURFACE TYPE (EXISTING)	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED
FUTURE SURFACE TYPE (PROPOSED)	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED	PAVED
DEFAULT CURRENT ADT	ADT 100	ADT 149	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50
DEFAULT FUTURE ADT**	ADT 100	ADT 149	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50	ADT 50
RECOMMENDED DESIGN																						
MINIMUM ROADWAY WIDTH (INCLUDING SHOULDERS)	66'	36'	32'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'	28'
SHOULDER WIDTH	6'	6'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'	4'
SHOULDER TYPE	PAVED	PAVED	PAVED	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH	PAVED/GRAVEL/EARTH

* Local Class 3 roads may be earth, gravel or paved, depending on tribal customs, economics, or environmental considerations.
 ** Use default future ADT for proposed roads or where impractical to acquire ADT or ADT does not exist. (See Table 2 Default ADT and Default Future ADT). Where current ADT is practical to acquire, it should be acquired and projected to a future ADT at 2 percent per year for 20 years.
 *** (1)=Flat; (2)=Rolling; (3)=Mountainous

Table 2—Default Current ADT and Default Future ADT

Table 2 summarizes the default current and default future ADT by class of road. De-

fault future ADT is calculated by projecting default current ADT at 2 percent per year for 20 years. 2 percent per year for 20 years yields a factor of 1.485.

TABLE 2—DEFAULT CURRENT ADT AND DEFAULT FUTURE ADT

IRR Class No.	Default current and default future ADT*
1	N/A, Must Exist
2	100 * 1.485 = 149
3	25 * 1.485 = 37
4	50 * 1.485 = 74
5	50 * 1.485 = 74
6	50 * 1.485 = 74
7	50 * 1.485 = 74
8	20 * 1.485 = 30
9	N/A**
10	N/A**
11	N/A**

* Default Future ADT is used for proposed roads or when impractical to acquire current ADT or when current ADT does not exist.

** Class 9, 10, and 11 are point features in the inventory and do not have an ADT. All multiplication is rounded.

Table 3—Future Surface Type

Table 3 summarizes all possible scenarios of the future surface type either required or based on the various future ADT thresholds for each type or class of road in the inventory.

TABLE 3—FUTURE SURFACE TYPE

Const. need	IRR class No.	Future ADT	Future surface type
0,1,2,3	1	Any	Paved
0,1,2,3	2	Any	Paved
0,1,2,3	3,6,7	< 50	Earth
		50 – 250	Gravel
		> 250	Paved
0,1,2,3	4,5	< 50	Earth
		50 – 250	Gravel
		> 250	Paved
0,1,2,3,4	8	N/A	N/A*
0,1,2,3,4	9	N/A	N/A**
0,1,2,3,4	10	N/A	N/A***
4***	1	N/A****	N/A****
4	2	ANY	Paved
4	3,6,7	< 50	Earth
		50 – 250	Gravel
		> 250	Paved
4	4	< 50	Earth
		50 – 250	Gravel
		> 250	Paved
4	5	< 50	Earth
		50 – 250	Gravel
		> 250	Paved

* Class 8 does not have a future surface type. Per mile costs are applied independent of future surface type.

** Class 9 does not have a future surface type. Costs are independent of future surface type.

*** Class 10 does not have a future surface type. These are airstrips and is used for identification purposed only.

**** Class 1 with Construction Need of 4 does not apply. Class 1 roads must exist.

Table 4—Percent of Grade and Drain Cost Required

Grade and Drain costs include the cost for constructing a roadbed to an adequate standard and providing adequate drainage. Specifically it includes the necessary earthwork to build the roadbed to the required hori-

zontal and vertical geometric parameters above the surrounding terrain and provide for proper drainage away from the foundation with adequate cross drains.

Table 4 summarizes the percentage of grade and drain costs required based on the existing roadbed condition observed in an inventory update.

TABLE 4—PERCENT OF GRADE AND DRAIN COST REQUIRED

Code	Roadbed condition	Percent grade and drain cost required (Percent)
0	Proposed Road	100
1	Primitive Trail	100
2	Bladed Unimproved Earth Road, Poor Drainage, Poor Alignment	100

TABLE 4—PERCENT OF GRADE AND DRAIN COST REQUIRED—Continued

Code	Roadbed condition	Percent grade and drain cost required (Percent)
3	Minimum Built-up Roadbed (Shallow cuts and fills) with inadequate drainage and alignment that generally follows existing ground.	100
4	A designed and constructed roadbed with some drainage and alignment improvements required.	100
5	A roadbed constructed to the adequate standards with good horizontal and vertical alignment and proper drainage.	0
6	A roadbed constructed to adequate standards with curb and gutter on one side ...	0
7	A roadbed constructed to adequate standards with curb and gutter on both sides	0

Table 5—Percent of Aggregate Surface Cost Required

Table 5 summarizes the percentage of aggregate surface costs required based on all

possible scenarios of existing surface type conditions and calculated future surface type.

TABLE 5—PERCENT OF AGGREGATE SURFACE COST REQUIRED

Existing surface type	Future surface type		
	Paved (percent)	Gravel (percent)	Earth (percent)
Proposed	100	100	0.
Primitive	100	100	0.
Earth	100	100	0.
Gravel	100	*100	0.
Bituminous < 2"	100	0	0.
Bituminous > 2"	0 or 100	0	0.
Concrete	0 or 100	0	0.

*If the Surface Condition Index (SCI) is 40 or less indicating that reconstruction will be required, then 100 percent of the aggregate cost will be required. If greater than 40, then none of the aggregate cost will be applied.

Table 6—Percent of Pavement Surface Cost Required

Table 6 Summarizes the percentage of pavement surface costs for existing condi-

tions required based on all possible scenarios of existing surface type conditions and calculated future surface type. Pavement overlays are calculated at 100 percent of the pavement costs.

TABLE 6—PERCENT OF PAVEMENT SURFACE COST REQUIRED

Existing surface type	Future surface type		
	Paved (percent)	Gravel (percent)	Earth (percent)
Proposed	100	100	0.
Primitive	100	100	0.
Earth	100	100	0.
Gravel	100	100	0.
Bituminous < 2"	100	0	0.
Bituminous > 2"	*0 or 100	0	0.
Concrete	*0 or 100	0	0.

*If the Surface Condition Index (SCI) is 60 or less indicating that reconstruction will be required, then 100 percent of the aggregate cost will be required. If greater than 60, then none of the aggregate cost will be applied.

Table 7—Percent of Incidental Construction Cost Required

Incidental cost items are generally required if a project includes construction or reconstruction of the roadbed. Some incidental items are included in all road im-

provement projects, while others are only required for specific projects. Table 7 summarizes the incidental construction determination estimating procedure for each of the Roadbed Category Codes. As shown in Table 4, roadbed condition codes 0 through 2 will require 65 percent of the incidental costs for

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construction because they generally will not require maintenance of traffic during construction. If maintenance of traffic is required as will generally be the case for roadbed condition codes 3 and 4, the minimum percentage of incidental costs for these roadbed condition codes will be 75 percent. It is

assumed that improvement roadbed condition codes 5, 6 and 7 will primarily be paving projects with little or no earthwork involved and the minimum percentage of the total incidental construction cost for these projects will be 30 percent.

TABLE 7—PERCENT OF INCIDENTAL CONSTRUCTION COST REQUIRED

Code	Roadbed condition	New alignment (percent)	Maintenance of traffic required (percent)
0	Proposed road	65	N/A
1	Primitive trail	65	N/A
2	Bladed unimproved earth road, poor drainage, poor alignment	65	N/A
3	Minimum built-up roadbed (shallow cuts and fills) with inadequate drainage and alignment that generally follows existing ground.	N/A	75
4	A designed and constructed roadbed with some drainage and alignment improvements required.	N/A	75
5	A roadbed constructed to the adequate standards with good horizontal and vertical alignment and proper drainage. Requiring surfacing.	N/A	30
6	A roadbed constructed to adequate standards with curb and gutter on one side. Requiring surfacing.	N/A	30
7	A roadbed constructed to adequate standards with curb and gutter on both sides. Requiring surfacing.	N/A	30

Table 7 only accounts for those incidental construction costs normally found on a typical project. The construction items found in Table 8 may or may not be on any particular project and the cost of these items is 25 percent. Add the percentage required (from 0 to 25 percent) based on the Regional recommendation with verification. If there are no additional items required, use the default of zero.

TABLE 8—PERCENT OF ADDITIONAL INCIDENTAL CONSTRUCTION COST

Additional incidental construction item	Percent of total incidental construction cost
Fencing	1
Landscaping	9
Structural concrete	9
Traffic signals	3
Utilities	3

Subpart D—Planning, Design, and Construction of Indian Reservation Roads Program Facilities

TRANSPORTATION PLANNING

§ 170.400 What is the purpose of transportation planning?

The purpose of transportation planning is to fulfill goals by developing strategies to meet transportation needs. These strategies address current

and future land use, economic development, traffic demand, public safety, health, and social needs.

§ 170.401 What is BIA’s role in transportation planning?

Except as provided in §170.402, the functions and activities that BIA must perform for the IRR Program are:

- (a) Preparing the regional IRRTIP;
- (b) Updating the IRR Inventory from data updates;
- (c) Preparing IRR Inventory data updates as needed;
- (d) Coordinating with States and their political subdivisions, and appropriate planning authorities on regionally significant IRR projects;
- (e) Providing technical assistance to tribal governments;
- (f) Developing IRR Program budgets including transportation planning cost estimates;
- (g) Facilitating public involvement;
- (h) Participating in transportation planning and other transportation-related meetings;
- (i) Performing traffic studies;
- (j) Performing preliminary project planning;
- (k) Conducting special transportation studies;
- (l) Developing short and long-range transportation plans;
- (m) Mapping;